Extron® Electronics

INTERFACING, SWITCHING AND DISTRIBUTION

User's Manual

HSA 822

Hideaway® Surface Access Enclosure

68-617-02 **Rev. H**
06 09

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Precautions

Safety Instructions • English

This symbol is intended to alert the user of important operating and maintenance (servicing) instructions in the literature provided with the equipment.

This symbol is intended to alert the user of the presence of uninsulated dangerous voltage within the product's enclosure that may present a risk of electric shock.

Caution

Read Instructions • Read and understand all safety and operating instructions before using the equipment.

Retain Instructions • The safety instructions should be kept for future reference.

Follow Warnings • Follow all warnings and instructions marked on the equipment or in the user information.

Avoid Attachments • Do not use tools or attachments that are not recommended by the equipment manufacturer because they may be hazardous.

Consignes de Sécurité • Français

Ce symbole sert à avertir l'utilisateur que la documentation fournie avec le matériel contient des instructions importantes concernant l'exploitation et la maintenance (réparation).

Ce symbole sert à avertir l'utilisateur de la présence dans le boîtier de l'appareil de tensions dangereuses non isolées posant des risques d'électrocution.

Attention

Lire les instructions• Prendre connaissance de toutes les consignes de sécurité et d'exploitation avant d'utiliser le matériel.

Conserver les instructions• Ranger les consignes de sécurité afin de pouvoir les consulter à l'avenir.

Respecter les avertissements • Observer tous les avertissements et consignes marqués sur le matériel ou présentés dans la documentation utilisateur.

Eviter les pièces de fixation • Ne pas utiliser de pièces de fixation ni d'outils non recommandés par le fabricant du matériel car cela risquerait de poser certains dangers.

Sicherheitsanleitungen • Deutsch

Dieses Symbol soll dem Benutzer in der im Lieferumfang enthaltenen Dokumentation besonders wichtige Hinweise zur Bedienung und Wartung (Instandhaltung) geben.

Dieses Symbol soll den Benutzer darauf aufmerksam machen, daß im Inneren des Gehäuses dieses Produktes gefährliche Spannungen, die nicht isoliert sind und die einen elektrischen Schock verursachen können, herrschen.

Achtung

Lesen der Anleitungen • Bevor Sie das Gerät zum ersten Mal verwenden, sollten Sie alle Sicherheits-und Bedienungsanleitungen genau durchlesen und verstehen.

Aufbewahren der Anleitungen • Die Hinweise zur elektrischen Sicherheit des Produktes sollten Sie aufbewahren, damit Sie im Bedarfsfall darauf zurückgreifen können.

Befolgen der Warnhinweise • Befolgen Sie alle Warnhinweise und Anleitungen auf dem Gerät oder in der Benutzerdokumentation.

Keine Zusatzgeräte • Verwenden Sie keine Werkzeuge oder Zusatzgeräte, die nicht ausdrücklich vom Hersteller empfohlen wurden, da diese eine Gefahrenquelle darstellen können.

Instrucciones de seguridad • Español

Este símbolo se utiliza para advertir al usuario sobre instrucciones importantes de operación y mantenimiento (o cambio de partes) que se desean destacar en el contenido de la documentación suministrada con los equipos.

Este símbolo se utiliza para advertir al usuario sobre la presencia de elementos con voltaje peligroso sin protección aislante, que puedan encontrarse dentro de la caja o alojamiento del producto, y que puedan representar riesgo de electrocución.

Precaucion

Leer las instrucciones • Leer y analizar todas las instrucciones de operación y seguridad, antes de usar el equipo.

Conservar las instrucciones • Conservar las instrucciones de seguridad para futura consulta.

Obedecer las advertencias • Todas las advertencias e instrucciones marcadas en el equipo o en la documentación del usuario, deben ser obedecidas.

Evitar el uso de accesorios • No usar herramientas o accesorios que no sean especificamente recomendados por el fabricante, ya que podrian implicar riesgos.

Warning

Power sources • This equipment should be operated only from the power source indicated on the product. This equipment is intended to be used with a main power system with a grounded (neutral) conductor. The third (grounding) pin is a safety feature, do not attempt to bypass or disable it.

Power disconnection • To remove power from the equipment safely, remove all power cords from the rear of the equipment, or the desktop power module (if detachable), or from the power source receptacle (wall plug).

Power cord protection • Power cords should be routed so that they are not likely to be stepped on or pinched by items placed upon or against them.

Servicing • Refer all servicing to qualified service personnel. There are no user-serviceable parts inside. To prevent the risk of shock, do not attempt to service this equipment yourself because opening or removing covers may expose you to dangerous voltage or other hazards.

Slots and openings • If the equipment has slots or holes in the enclosure, these are provided to prevent overheating of sensitive components inside. These openings must never be blocked by other objects.

Lithium battery • There is a danger of explosion if battery is incorrectly replaced. Replace it only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.

Avertissement

Alimentations• Ne faire fonctionner ce matériel qu'avec la source d'alimentation indiquée sur l'appareil. Ce matériel doit être utilisé avec une alimentation principale comportant un fil de terre (neutre). Le troisième contact (de mise à la terre) constitue un dispositif de sécurité : n'essayez pas de la contourner ni de la désactiver.

Déconnexion de l'alimentation• Pour mettre le matériel hors tension sans danger, déconnectez tous les cordons d'alimentation de l'arrière de l'appareil ou du module d'alimentation de bureau (s'il est amovible) ou encore de la prise secteur.

Protection du cordon d'alimentation • Acheminer les cordons d'alimentation de manière à ce que personne ne risque de marcher dessus et à ce qu'ils ne soient pas écrasés ou pincés par des objets.

Réparation-maintenance • Faire exécuter toutes les interventions de réparation-maintenance par un technicien qualifié. Aucun des éléments internes ne peut être réparé par l'utilisateur. Afin d'éviter tout danger d'électrocution, l'utilisateur ne doit pas essayer de procéder lui-même à ces opérations car l'ouverture ou le retrait des couvercles risquent de l'exposer à de hautes tensions et autres dangers.

Fentes et orifices • Si le boîtier de l'appareil comporte des fentes ou des orifices, ceux-ci servent à empêcher les composants internes sensibles de surchauffer. Ces ouvertures ne doivent jamais être bloquées par des objets.

Lithium Batterie • Il a danger d'explosion s'll y a remplacment incorrect de la batterie. Remplacer uniquement avec une batterie du meme type ou d'un ype equivalent recommande par le constructeur. Mettre au reut les batteries usagees conformement aux instructions du fabricant.

Vorsicht

Stromquellen • Dieses Gerät sollte nur über die auf dem Produkt angegebene Stromquelle betrieben werden. Dieses Gerät wurde für eine Verwendung mit einer Hauptstromleitung mit einem geerdeten (neutralen) Leiter konzipiert. Der dritte Kontakt ist für einen Erdanschluß, und stellt eine Sicherheitsfunktion dar. Diese sollte nicht umgangen oder außer Betrieb gesetzt werden.

Stromunterbrechung • Um das Gerät auf sichere Weise vom Netz zu trennen, sollten Sie alle Netzkabel aus der Rückseite des Gerätes, aus der externen Stomversorgung (falls dies möglich ist) oder aus der Wandsteckdose ziehen.

Schutz des Netzkabels • Netzkabel sollten stets so verlegt werden, daß sie nicht im Weg liegen und niemand darauf treten kann oder Objekte darauf- oder unmittelbar dagegengestellt werden können.

Wartung • Alle Wartungsmaßnahmen sollten nur von qualifiziertem Servicepersonal durchgeführt werden. Die internen Komponenten des Gerätes sind wartungsfrei. Zur Vermeidung eines elektrischen Schocks versuchen Sie in keinem Fall, dieses Gerät selbst öffnen, da beim Entfernen der Abdeckungen die Gefahr eines elektrischen Schlags und/oder andere Gefahren bestehen.

Schlitze und Öffnungen • Wenn das Gerät Schlitze oder Löcher im Gehäuse aufweist, dienen diese zur Vermeidung einer Überhitzung der empfindlichen Teile im Inneren. Diese Öffnungen dürfen niemals von anderen Objekten blockiert werden.

Litium-Batterie • Explosionsgefahr, falls die Batterie nicht richtig ersetzt wird. Ersetzen Sie verbrauchte Batterien nur durch den gleichen oder einen vergleichbaren Batterietyp, der auch vom Hersteller empfohlen wird. Entsorgen Sie verbrauchte Batterien bitte gemäß den Herstelleranweisungen.

Advertencia

Alimentación eléctrica • Este equipo debe conectarse únicamente a la fuente/tipo de alimentación eléctrica indicada en el mismo. La alimentación eléctrica de este equipo debe provenir de un sistema de distribución general con conductor neutro a tierra. La tercera pata (puesta a tierra) es una medida de seguridad, no puentearia ni eliminaria.

Desconexión de alimentación eléctrica • Para desconectar con seguridad la acometida de alimentación eléctrica al equipo, desenchufar todos los cables de alimentación en el panel trasero del equipo, o desenchufar el módulo de alimentación (si fuera independiente), o desenchufar el cable del receptáculo de la pared.

Protección del cables de alimentación • Los cables de alimentación eléctrica se deben instalar en lugares donde no sean pisados ni apretados por objetos que se puedan apoyar sobre ellos.

Reparaciones/mantenimiento • Solicitar siempre los servicios técnicos de personal calificado. En el interior no hay partes a las que el usuario deba acceder. Para evitar riesgo de electrocución, no intentar personalmente la reparación/mantenimiento de este equipo, ya que al abrir o extraer las tapas puede quedar expuesto a voltajes peligrosos u otros riesgos.

Ranuras y aberturas • Si el equipo posee ranuras o orificios en su caja/alojamiento, es para evitar el sobrecalientamiento de componentes internos sensibles. Estas aberturas nunca se deben obstruir con otros objetos.

Batería de litio • Existe riesgo de explosión si esta batería se coloca en la posición incorrecta. Cambiar esta batería únicamente con el mismo tipo (o su equivalente) recomendado por el fabricante. Desachar las baterías usadas siguiendo las instrucciones del fabricante.

Extron's Warranty

Extron Electronics warrants this product against defects in materials and workmanship for a period of three years from the date of purchase. In the event of malfunction during the warranty period attributable directly to faulty workmanship and/or materials, Extron Electronics will, at its option, repair or replace said products or components, to whatever extent it shall deem necessary to restore said product to proper operating condition, provided that it is returned within the warranty period, with proof of purchase and description of malfunction to:

USA, Canada, South America, and Central America:
Extron USA
1001 East Ball Road
Anaheim, CA 92805
U.S.A.

Europe, Africa, and the Middle East:
Extron Europe
Hanzeboulevard 10
3825 PH Amersfoort
The Netherlands

Asia:
Extron Asia
135 Joo Seng Road #04-01
PM Industrial Bldg.
Singapore 368363
Singapore

Japan:
Extron Japan
Kyodo Building, 16 Ichibancho
Chiyoda-ku, Tokyo 102-0082
Japan

China:
Extron China
686 Ronghua Road, Songjiang District
Shanghai 201611
China

Middle East:
Extron Middle East
Dubai Airport Free Zone
F12, PO Box 293666
United Arab Emirates, Dubai

This Limited Warranty does not apply if the fault has been caused by misuse, improper handling care, electrical or mechanical abuse, abnormal operating conditions or non-Extron authorized modification to the product.

If it has been determined that the product is defective, please call Extron and ask for an Applications Engineer at (714) 491-1500 (USA), 31.33.453.4040 (Europe), 65.6383.4400 (Asia), or 81.3.3511.7655 (Japan) to receive an RA# (Return Authorization number). This will begin the repair process as quickly as possible.

Units must be returned insured, with shipping charges prepaid. If not insured, you assume the risk of loss or damage during shipment. Returned units must include the serial number and a description of the problem, as well as the name of the person to contact in case there are any questions.

Extron Electronics makes no further warranties either expressed or implied with respect to the product and its quality, performance, merchantability, or fitness for any particular use. In no event will Extron Electronics be liable for direct, indirect, or consequential damages resulting from any defect in this product even if Extron Electronics has been advised of such damage.

Please note that laws vary from state to state and country to country, and that some provisions of this warranty may not apply to you.

安全须知 • 中文

这个符号提示用户该设备用户手册中有重要的操作和维护说明。

这个符号警告用户该设备机壳内有暴露的危险电压，有触电危险。

注意

阅读说明书 • 用户使用该设备前必须阅读并理解所有安全和使用说明。

保存说明书 • 用户应保存安全说明书以备将来使用。

遵守警告 • 用户应遵守产品和用户指南上的所有安全和操作说明。

避免追加 • 不要使用该产品厂商没有推荐的工具或追加设备，以避免危险。

警告

电源 • 该设备只能使用产品上标明的电源。 设备必须使用有地线的供电系统供电。 第三条线（地线）是安全设施，不能不用或跳过。

拔掉电源 • 为安全地从设备拔掉电源，请拔掉所有设备后或桌面电源的电源线，或任何接到市电系统的电源线。

电源线保护 • 妥善布线， 避免被踩踏，或重物挤压。

维护 • 所有维修必须由认证的维修人员进行。 设备内部没有用户可以更换的零件。为避免出现触电危险不要自己试图打开设备盖子维修该设备。

通风孔 • 有些设备机壳上有通风槽或孔，它们是用来防止机内敏感元件过热。 不要用任何东西挡住通风孔。

锂电池 • 不正确的更换电池会有爆炸的危险。 必须使用与厂家推荐的相同或相近型号的电池。 按照生产厂的建议处理废弃电池。

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Chapter One

Introduction

About the HSA 822 Hideaway® Enclosures

Features

About the HSA 822 Hideaway® Enclosure

The Extron HSA 822 is a furniture-mounted, architectural solution for inconspicuous computer video interface connector access and control.

The HSA 822 provides space for four double space (double-height) or eight single space Extron Architectural Adapter Plates (AAPs), two standard grounded AC power receptacles, and four RJ-45 (Category 6, CAT 6) connectors (figure 1-1). The HSA is available in a US version, with US power receptacles, and an international version. Several different types of power receptacles are available for the international version, including Universal, UK, French, Israeli, Australian, Indian, European, and Swiss receptacles.

NOTE *The Universal AC outlet is fully compatible with Europlug, British, Indian, Danish, and Italian plug types. See the universal AC outlet guide on the Extron Web site, www.extron.com, for compatibility details on all plug types.*

Figure 1-1 — HSA 822 hideaway enclosure

The AAP spaces and RJ-45 connectors are arranged back-to back, while the AC receptacles are back-to-back on the sides perpendicular to the AAPs. Cabling inside the enclosure runs the AC power line and RJ-45 signal lines from the connectors on the AAP panels to connectors on the underside of the enclosure.

With an optional conversion kit, one or more of the RJ-45 (data) lines can be converted to an RJ-11 (telephone) line.

The installed enclosure fits nearly flush within a table or podium top, storing the AAPs and connectors out of the way and out of sight. To access the AAPs and connectors, the user presses down on the top of the enclosure, releasing a mechanical latch. A gas lift slowly raises the AAPs and connectors into view.

The functionality of the HSA 822 can be optimized with one through four RGB 580*xi* AAPs connected to one through four RGB 580*xi* Remote Interfaces (figure 1-2).

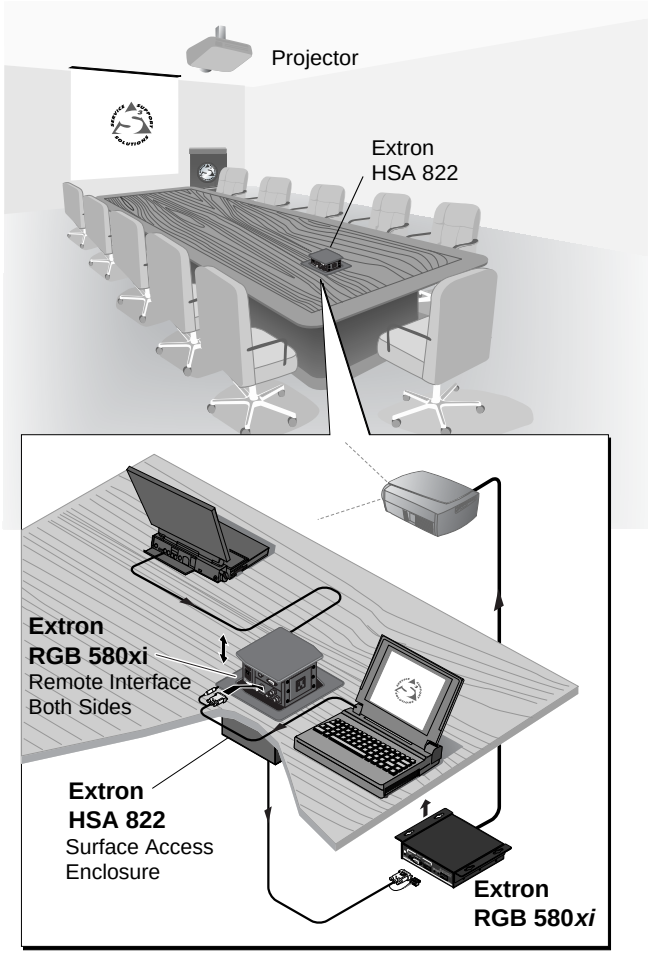


Figure 1-2 — HSA 822 and RGB 580xi configuration

The HSA 822 is available in a variety of surface finishes, including black anodized aluminum, brushed aluminum, brushed brass, and polished aluminum.

Features

- UL / c-UL listing
- CSA certification
- Easy access to connectors and controls
- Durable mechanical movement and latching mechanism
- A variety of surface finishes available
- A variety of colors of included RJ-45 connector bezels included: black, red, blue, orange, gray, white, ivory, yellow, and green

NOTE *The space behind the AAP panel is limited. The online Connectivity Configurator, available at www.extron.com, offers guidance as to the fit of AAPs into this space.*

- Compact size
- Easy installation of up to four powered or passive double space Extron AAPs
- RJ-45 (CAT 5 / 6) network and data connections (teminated in accordance with the **TIA/EIA T 568 A** standard)
- Grounded AC plugs

Chapter Two

Installation

Installation Overview

Preparing the Routing Template

Preparing the Table and Mounting the Enclosure

Cabling and Installing the AAPs

Cabling the Enclosure

Routing the AAP Cables

Bezels

Installation Overview

Install and set up the HSA 822 as follows:

1. If desired, install the optional RJ-45 to RJ-11 conversion kit(s) to replace one or more RJ-45 connectors with RJ-11 connectors. Refer to the *RJ-45 to RJ-11 Conversion Kit* manual.
2. If desired, install the optional flexible conduit kit to replace the removable AC power cord. Refer to the *Flexible Conduit Kit* manual.
3. If you have an unprepared mounting template, prepare the template. See "Preparing the Routing Template" on the next page.
4. Cut a hole in the surface where the enclosure will be installed and install the enclosure. The clamshell, a clamping and protective device, clamps the enclosure to the table. See "Preparing the Table and Mounting the Enclosure" on page 2-4.
5. Run all cables necessary to support the AC and RJ-45 connectors and all planned AAP connectors. Leave enough slack in the cables to connect them to the underside of the enclosure or to the rear of the AAPs before the AAPs are installed in the enclosure.
6. Turn off all of the equipment to be connected. Ensure that the equipment connected to the RJ-45 connectors and the connections for any AAPs are all turned off and disconnected from the power source.
7. If applicable, connect cables to the rear connectors on the AAPs to be installed in the HSA 822. Install the desired AAPs on the AAP panel of the enclosure. See "Cabling and Installing the AAPs" on page 2-8.
8. Connect the power and RJ-45 cables to the underside of the enclosure. See "Cabling the Enclosure" on page 2-10.
9. Route and secure the AAP cables inside the clamshell. See "Routing the AAP Cables" on page 2-12.
10. If present, peel the protective coating from the top surface.
11. Connect power cords and turn on the devices that connect to the surface access enclosure.

Preparing the Routing Template

Extron offers a metal routing template for the HSA 822, part #**70-191-01**. Extron recommends using this template as a guide to cut the hole in the table where the HSA will be installed.

NOTE *The metal routing template is reusable. Do not discard this template when the installation is complete. Save it for future HSA 822 installations.*

1. Cut 1/2" x 4" strips of soft, finished lumber long enough to span the distance between the desired installation location on the table or other mounting surface and the edges of the table (figure 2-1).

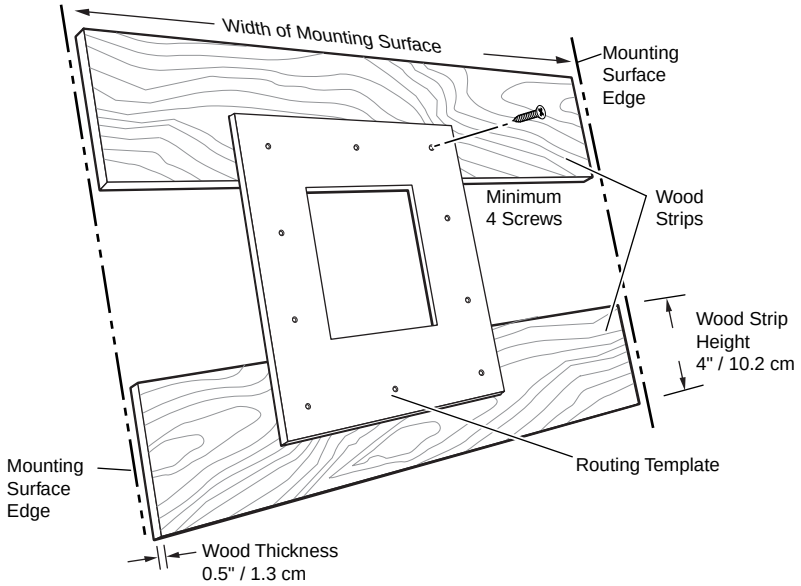


Figure 2-1 — Prepared routing template

These strips raise the routing template above the mounting surface to provide room for the router's collar, protect the mounting surface, and extend the reach of the routing template so that it can be clamped to the edge of the surface.

2. Using four or more short wood screws, secure the routing template to the lumber strips.

CAUTION *Do not allow the wood screws to protrude through the bottom of the wooden strips. Protruding screws will mar the table when the template is used.*

Preparing the Table and Mounting the Enclosure

The preferred and **recommended** method for preparing the table is to use the appropriate Extron metal routing template and a router.

Alternatively, you can use a paper cut-out template (see appendix A, "Reference Information") and a sabre saw or keyhole saw, but this method is **not recommended**.

Prepare the table as follows:

CAUTION *The opening in the table for the HSA 822 should be cut only by licensed and bonded craftspeople. Exercise care to prevent scarring or damaging the furniture.*

*The routing templates for the various HSA models are **not interchangeable**. If you use the wrong template, you **will** cut an improperly-sized hole. If you use a larger template than required, the cut will result in gaps in the table surface on either side of the enclosure.*

The surfaces of the HSA enclosure have screws and other protruding hardware that could damage fine furniture. Do not rest the enclosure on unprotected furniture.

NOTE *The metal routing template is reusable. Do not discard this template when the installation is complete. Save it for future HSA 822 installations.*

1. Locate the desired mounting location on the tabletop or other installation surface. Mark the location.

CAUTION *Ensure that only the wooden strips contact the furniture. Failure to do so may mar the furniture.*

2. Place the routing template assembly on the table, centered on the mounting location. Angle the template for the optimum positioning. If necessary, use a square to ensure that the template is properly positioned. Extron is not responsible for improperly-positioned HSA products.
3. Once the template assembly is positioned properly, secure the assembly to the table with C-clamps (figure 2-2).

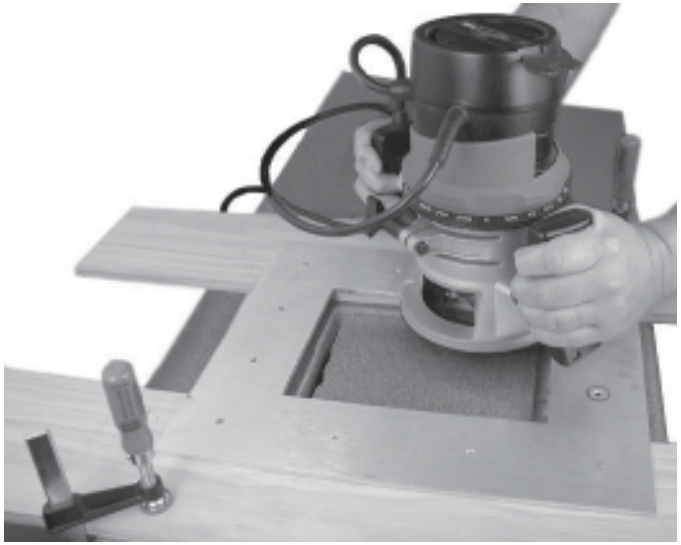


Figure 2-2 — Cutting the opening with a router

WARNING *Wear safety glasses when operating the router. Failure to comply can result in eye injury.*

4. Using a router with a 5/8" (or 16 mm) outside diameter guide bushing and a 1/2" (or 12 mm or 12.7 mm) diameter straight router bit, carefully cut the opening in the table surface (figure 2-2).
5. Remove the C-clamps and the routing template.

WARNING *The flanged edges of the top of the surface enclosure are sharp when the HSA is removed from the table. Exercise caution when handling to prevent personal injury.*

CAUTION *The flanged edges of the top of the surface enclosure are bevelled to an ultra-fine thickness of less than 0.04 (4/100)" (approximately 1 mm). These edges are soft and can be easily nicked or bent. Exercise caution when handling and mounting the enclosure. Mishandling can damage the appearance of the enclosure.*

6. Remove the plastic strips that protect the flanged edges of the top of the surface enclosure. If a sticky residue remains, remove it with an appropriate metal cleaning product.

CAUTION *Do **not** use isopropyl alcohol or other solvents to clean the HSA. Strong solvents **will** ruin some finishes.*

7. Carefully lower the HSA enclosure into the hole to test the fit. If necessary, remove the enclosure and use a file or rasp to enlarge or smooth the edges of the opening.

8. From the underside of the table, bolt the clamshell to the enclosure with two bolts of optimum length (included) (figure 2-3).

9. Peel any remaining protective coating from the enclosure.

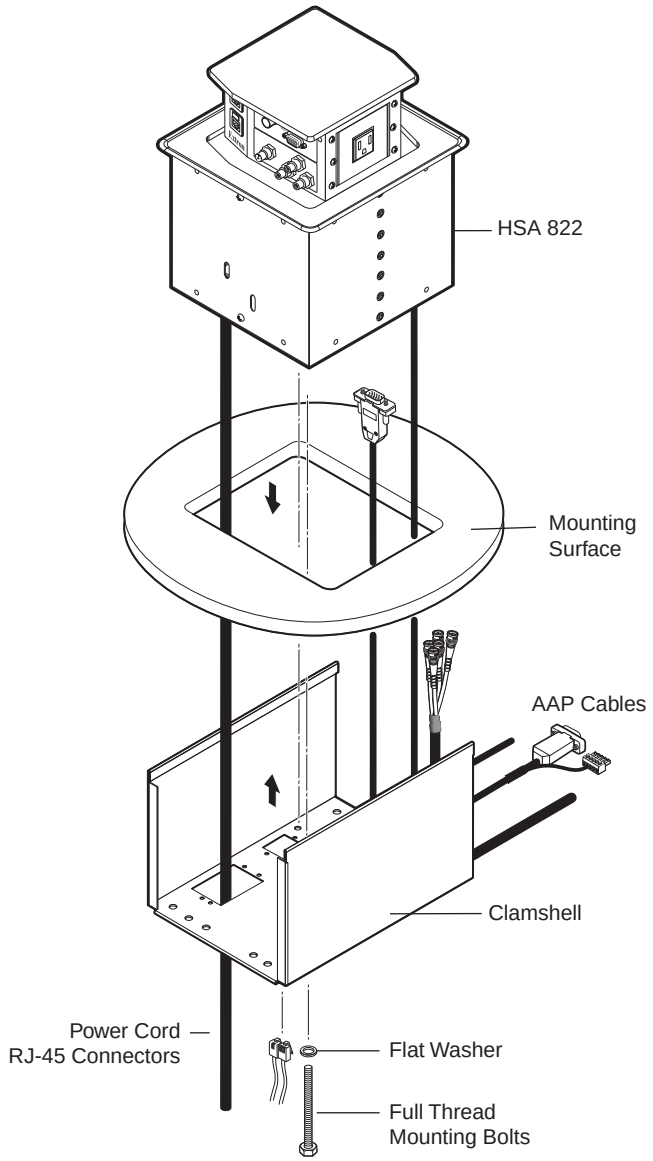


Figure 2-3 — Mounting the HSA 822 enclosure

Cabling and Installing the AAPs

NOTE *The space behind the AAP panel is limited. The online Connectivity Configurator, available at www.extron.com, offers guidance as to the fit of AAPs into this space.*

Extron's various single space and double space AAP devices, including the various RGB 580*xi* AAPs, can be mounted to the HSA 822. See appendix A, "Reference Information", for RGB 580*xi* AAP part numbers.

The screws for installing an AAP are built into its AAP panel, so no additional screws are needed.

WARNING *Ensure that AC power is disconnected before servicing the HSA unit.*

1. Remove the top and bottom screws on the right and left sides of the AAP panel (figure 2-4). Retain the screws. Lift the panel away from the enclosure as far as the connected cables allow and then allow the panel to dangle, supported by its connected cables.

NOTE *The center screws on each side of the AAP panel do not fasten the AAP panel in place. They secure the AC power outlet.*

NOTE *Ensure that the edges of the AAP panels do not scratch the finished surface of the top panel flange when removing the panels.*

2. Cable the rear of the AAPs before fastening the AAPs to the AAP panel. Route the cables through the hole in the underside of the surface mount enclosure and connect them to the rear of the AAPs. If applicable, refer to the cabling information in the documentation for the AAP.

3. Insert each of the AAP's screws through the holes in the AAP opening of the HSA AAP panel. Secure each AAP to the panel with the provided captive washers and #4-40 nuts (figure 2-5).

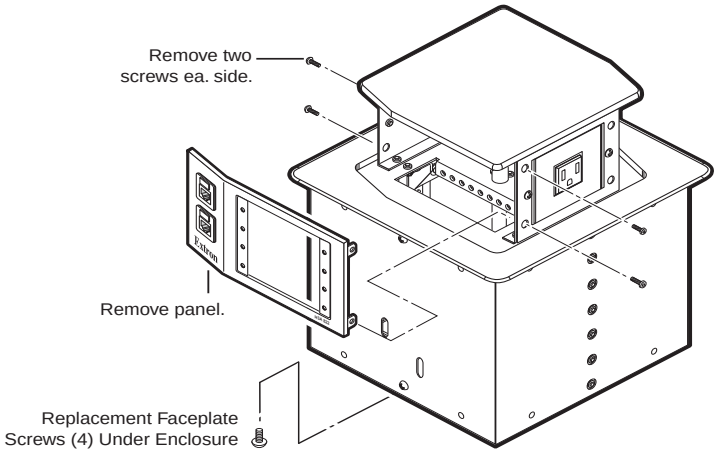


Figure 2-4 — Removing the AAP panel from an HSA 822

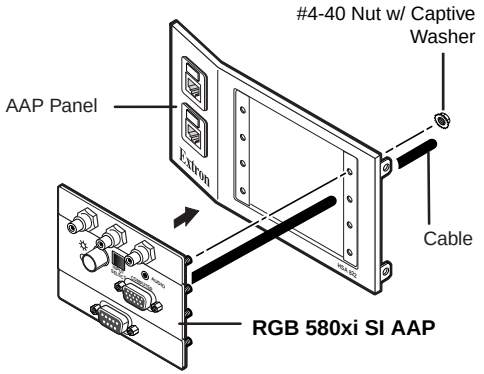


Figure 2-5 — Mounting an AAP device on the AAP panel

4. Replace the AAP panel in the surface mount enclosure and secure it in place with the screws removed in step **1**. If you lose an AAP panel screw, four spare screws are stored in the underside of the enclosure.

Cabling the Enclosure

Bottom panel features

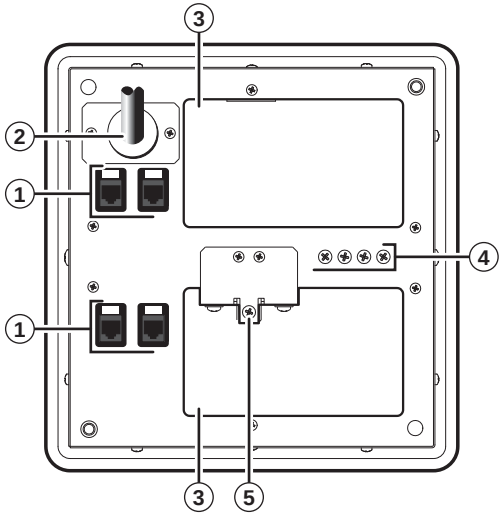


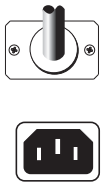
Figure 2-6 — HSA 822 enclosure underside connectors

1. **RJ-45 connectors** — See "Cabling the RJ-45 connectors", below.

   NOTE *All RJ-45 connectors are teminated in accordance with the **TIA/EIA T 568 A** standard.*

2. **AC power connector** — Connect this cord to the power source.

   NOTE *For US domestic versions, this power cord is permanently connected to the HSA. Connect the power cord to a 125 VAC, 60 Hz, 10 A power source. For international versions, this power cord is a removable IEC power cord. Connect the cord to a 220-250 V, 50-60 Hz, 10 A power source.*

3. **Cable access holes**

4. **Spare AAP panel screws**

5. **Top panel height adjustment screw** — See "Adjusting the height of the top surface" in chapter 3, "Maintenance and Modifications".

Cabling the RJ-45 connectors

Plug one end of a CAT 5 or CAT 6 twisted pair (TP) cable into each of these RJ-45 female connectors. Connect the other end to an appropriate telecommunications or data network or to an Extron TP product.

NOTE *An RJ-11 (telephone) jack can be plugged directly into the RJ-45 jack.*

When cabling the AAP panels and the bottom panel, the bottom RJ-45 connectors match up with the AAP panel RJ-45 connectors as shown in figure 2-7. For example, match the AAP panel RJ-45 connector A1 with the underside RJ-45 connector A1, match A2 with A2, and so forth.

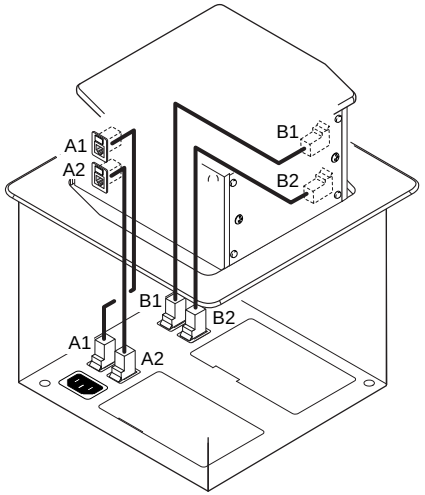


Figure 2-7 — HSA 822 RJ-45 connectors

If necessary, have a qualified service person replace the connector icon on the AAP panel by prying the old icon off of the connector plug-in with a tweeker or small screwdriver (figure 2-8) and snapping a new icon in place.

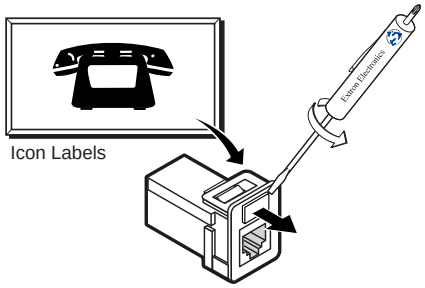
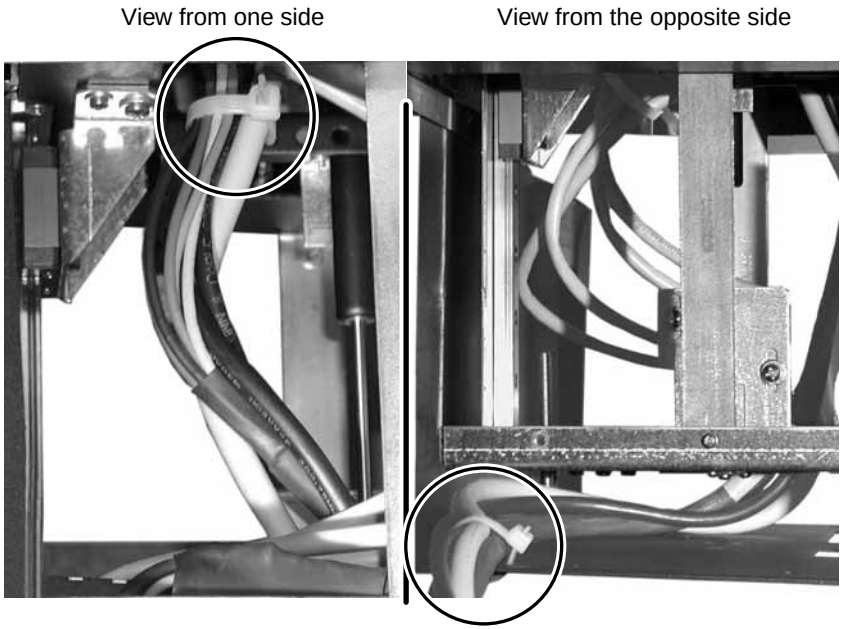


Figure 2-8 — Changing the connector icon

Routing the AAP Cables

The AAP cables must have freedom of movement to permit opening and closing the surface mount enclosure. At the same time, they need to be restrained to prevent them from rubbing against the edges of the enclosure cable access hole in the underside of the surface mount enclosure. Rubbing against the cable access hole edges can damage the cables. Route and secure the AAP cables as follows:

1. Open the top panel to extend the AAP cables to their maximum pull.
2. Experiment with AAP cable positioning to ensure that the cables do not rub against the edges of the AAP cable hole and to ensure that the cable pull does not restrict the movement of the top panel. Figure 2-9 shows the cables routed to the side, which proved effective in tests at Extron.
3. Use tie wraps to secure the AAP cables to the tie-down holes in the clamshell and enclosure in the locations shown on figure 2-9.

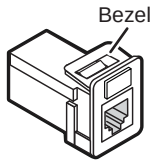


Secure the AAP cables at the circled locations.

Figure 2-9 — HSA 822 AAP cable routing

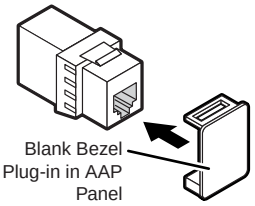
Bezels

The HSA 822 ships with RJ-45/RJ-11 connector bezel plug-ins in a variety of colors and a black, blank bezel.



To change to a different color RJ-45 connector bezel or if an RJ-45 connector is not needed or desired, replace the connector bezel plug-in on the AAP panel with a bezel of a different color or a blank plug-in. See "Replacing the Bezels" in chapter 3.

If no RJ-45 connector is desired, snap the interior RJ-45 cable onto the rear of the blank bezel plug-in (shown at right) to hold it conveniently out of the way. Retain the removed connector bezel plug-in for any possible later use.



Chapter Three

Maintenance and Modifications

Replacing an AAP

Replacing the Bezels

Removing and Replacing the Enclosure

Replacing the Gas Lift

Adjusting the Top Surface

The HSA 822 surface mount enclosures can be modified in the future to replace an AAP. The most probable corrective maintenance procedures required are leveling the top surface and replacing the gas lift. Most of the maintenance procedures require removing the surface mount enclosure from the table.

Replacing an AAP

Replace one or more AAPs as follows:

WARNING *Ensure that AC power is disconnected before servicing the HSA unit.*

1. On the underside of the clamshell and in the enclosure, cut the tie wraps that route the AAP cables out of the way.
2. Remove the top and bottom screws on the right and left sides of the AAP panel (figure 3-1). Retain the screws. Lift the panel away from the enclosure as far as the connected cables allow and then allow the panel to dangle, supported by its connected cables.

NOTE *The center screws on each side of the AAP panel do not fasten the AAP panel in place. They secure the AC power outlet.*

CAUTION *Ensure that the edges of the AAP panels do not scratch the finished surface of the top panel flange or the furniture in which the HSA 822 is installed when removing the panels.*

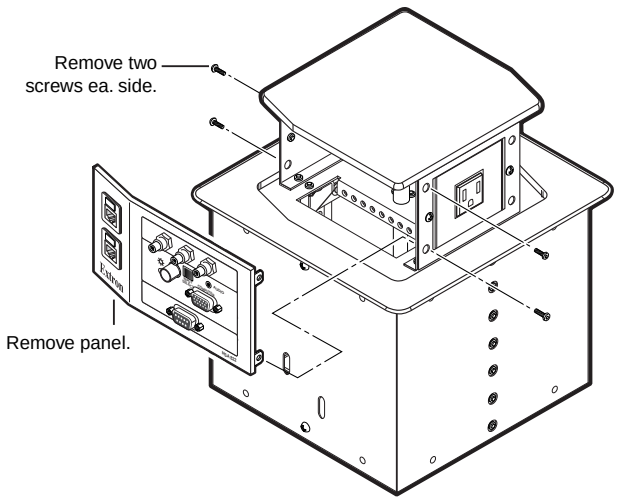


Figure 3-1 — Removing the AAP panel

3. Disconnect any cables from the rear of the AAPs that are being replaced. If a cable is no longer required in your system, carefully pull the cable through and out the bottom of the surface mount enclosure and the clamshell.
4. Remove the AAP(s) that you no longer want from the AAP panel by unscrewing the nuts on the rear of the AAP panel that secure the AAPs in place (figure 3-2).

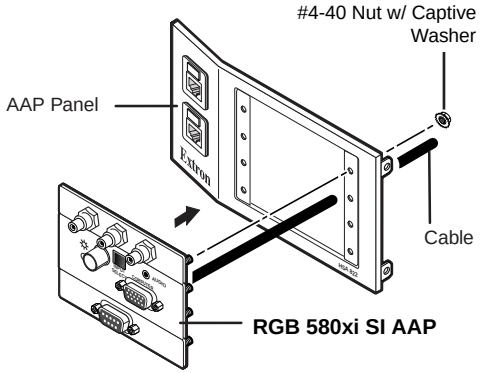


Figure 3-2 — Mounting an AAP device

5. Cable the rear of the AAPs to be installed before attaching the AAPs to the enclosure. Route the cables through the hole in the underside of the surface mount enclosure and connect them to the rear of the AAPs. If applicable, refer to the cabling information in the documentation for the AAP.
6. Insert each AAP's screws through the holes in the AAP opening of the AAP panel. Secure each AAP to the panel with the provided captive washers and #4-40 nuts.
7. Replace the AAP panel in the surface mount enclosure and secure them in place with the screws removed in step **2**. If you lose an AAP panel screw, four spare screws are stored in the underside of the enclosure (see figure 2-6 on page 2-10).
8. To prevent wear and tear caused by cable movement, secure the AAP cables underneath the table. See page 2-12, "Routing the AAP Cables".

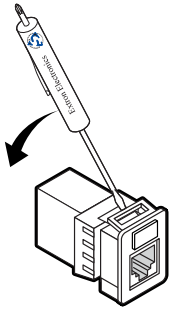
Replacing the Bezels

The HSA 822 ships with RJ-45 connector bezel plug-ins in a variety of colors and a black, blank bezel. Replace a bezel as follows:

1. Remove the top and bottom screws on the right and left sides of the AAP panel (figure 3-1). Retain the screws. Lift the panel away from the enclosure as far as the connected cables allow and then allow the panel to dangle, supported by its connected cables.

NOTE *The center screws on each side of the AAP panel do not fasten the AAP panel in place. They secure the AC power outlet.*

NOTE *Ensure that the edges of the AAP panels do not scratch the finished surface of the top panel flange when removing the panels.*



2. With a Tweeker, push down on and gently twist on the front of each RJ-45 connector detent to disconnect the connector from the rear of the AAP panel plug-in.

3. Pinch the top and bottom bezel detents together and push the bezel through the AAP panel.

4. Snap a replacement bezel in place. If necessary, replace the connector icon by prying the old icon off of the connector plug-in with a Tweeker (figure 3-3) and snapping a new icon in place.

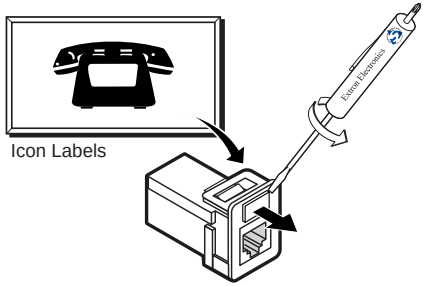


Figure 3-3 — Changing the connector icon

5. Replace the AAP panel in the surface mount enclosure and secure it in place with the screws removed in step **1**. If you lose an AAP panel screw, four spare screws are stored in the underside of the enclosure.

Removing and Replacing the Enclosure

The procedures for replacing the gas lift and adjusting the levelling of the top surface require removing the HSA 822 from the table. Remove and replace the surface mount enclosure for maintenance as follows:

WARNING *Ensure that AC power is disconnected before servicing the HSA unit.*

1. On the underside of the clamshell and in the enclosure, cut the tie wraps that route the AAP cables out of the way.

2. Disconnect the IEC power cord and RJ-45 connectors from the underside of the surface mount enclosure.

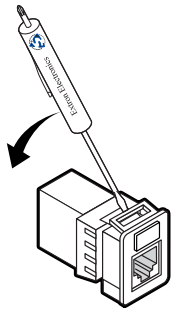
3. On both AAP panels, remove the top and bottom screws on the right and left sides of the AAP panel (figure 3-1, page 3-2). Retain the screws. Lift the panels away from the enclosure as far as the connected cables allow and then allow the panels to dangle, supported by their connected cables.

NOTE *The center screws on each side of the AAP panel do not fasten the AAP panel in place. They secure the AC power outlet.*

CAUTION *Ensure that the edges of the AAP panels do not scratch the finished surface of the top panel flange or the furniture in which the HSA 822 is installed when removing the panels.*

4. To ensure that the bottom RJ-45 connectors match up with the AAP panel RJ-45 connectors when the maintenance is complete, tag the internal CAT 6 cables to define their installation location (top or bottom and side A or B).

Also tag the side of the enclosure itself (A or B).



5. With a Tweeker, inside the AAP panels, push down on and gently twist on the front of each RJ-45 connector detent to disconnect the connector from the rear of the AAP panel plug-in.

6. Disconnect any cables from the rear of the existing AAPs. Carefully pull the cables through and out the bottom of the surface mount enclosure.

7. Set the AAP panels aside.

WARNING *The flanged edges of the top of the surface enclosure are sharp when the HSA is removed from the table. Exercise caution when handling to prevent personal injury.*

CAUTION *The flanged edges of the top of the surface enclosure are bevelled to an ultra-fine thickness of less than 0.04 (4/100)" (approximately 1 mm). These edges are soft and can be easily nicked or bent. Exercise caution when handling and mounting the enclosure. Mishandling can damage the appearance of the enclosure.*

The surfaces of the HSA enclosure have screws and other protruding hardware that could damage fine furniture. Do not rest the enclosure on unprotected furniture.

8. On the underside of the table, remove the two bolts that secure the clamshell to the surface mount enclosure (figure 3-4). Lift the enclosure out of the table.

9. Remove and retain the four screws in the corners of each side surface of the enclosure shroud "cube". Remove the two halves of the shroud.

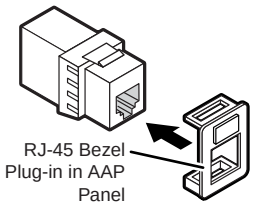
NOTE *You do not need to remove the screws in the center of each side. They do not secure the shroud in any way; rather, they provide structural support to the enclosure.*

10. Perform the desired maintenance or modification procedure.

11. If the surface is not level or the top panel is not level with the flange, adjust the top surface. See "Adjusting the Top Surface" in this chapter.

12. Connect the appropriate cables to the rear of the AAPs installed on the AAP panels. Route the cables through the hole in the underside of the surface mount enclosure and connect them to the rear of the AAPs. Refer to the cabling information in the documentation for the AAP.

13. Snap the interior RJ-45 cable connectors onto the rear of the RJ-45 AAP panel bezel plug-ins in the locations identified by the tags.



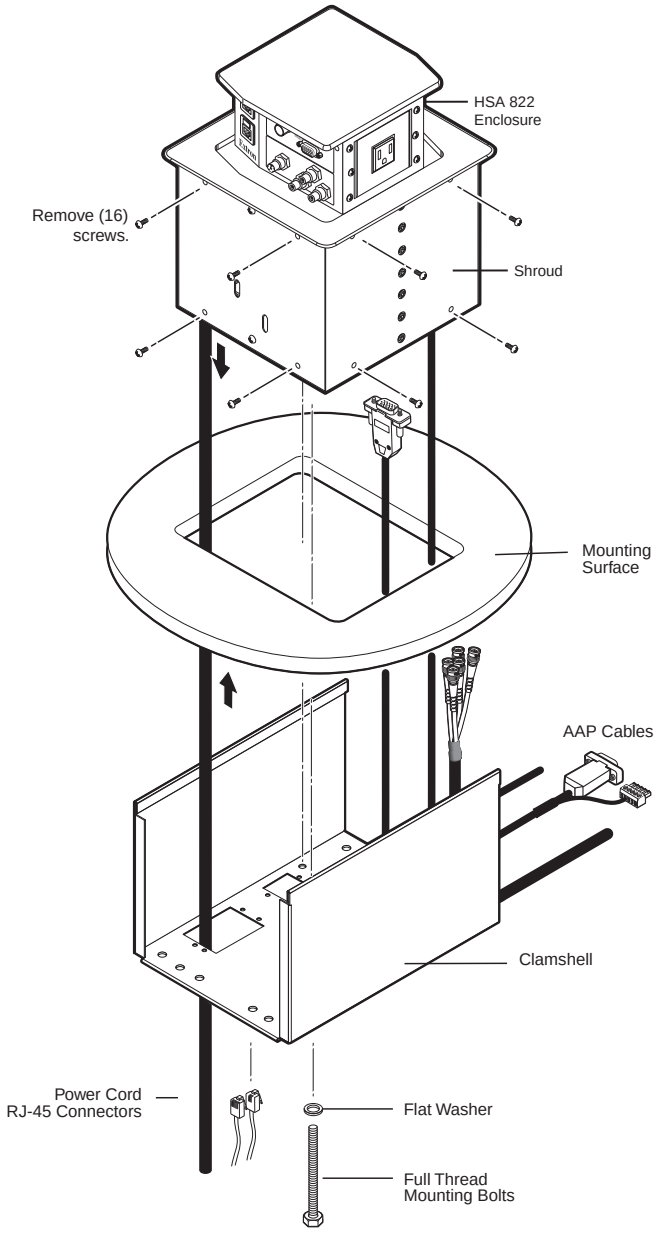


Figure 3-4 — Removing the HSA 822 from the table

14. Replace the AAP panels in the surface mount enclosure and secure them in place with the screws removed in step **3**. If you lose an AAP panel screw, four spare screws are stored in the underside of the enclosure.

15. Secure the two shroud halves to the enclosure frame with the eight screws per shroud half (four per side) removed in step **9**. Orient the shroud halves such that the vertical column of center holes align with the column of screw inserts on the vertical slides.

16. Carefully lower the HSA enclosure into the table opening. From the underside, bolt the clamshell to the enclosure with the two bolts removed in step **8**.

17. Connect the IEC power cord and RJ-45 cables to the connectors on the underside of the surface mount enclosure.

18. To prevent wear and tear caused by cable movement, secure the AAP cables underneath the table. See page 2-12, "Routing the AAP Cables".

Replacing the Gas Lift

The gas lift that raises the surface is rated for 100,000 opening and closing cycles. An enclosure with many cables connected or an enclosure with a brass top panel may require a stronger gas lift than the standard 10 lb lift. Contact the Extron S³ Sales & Technical Support Hotline at the nearest phone number listed on the rear cover of this manual to obtain a replacement gas lift.

Replace the gas lift as follows:

WARNING *Ensure that AC power is disconnected before servicing the HSA unit.*

1. Remove the surface mount enclosure. See "Removing and Replacing the Enclosure", steps **1** through **9**, in this chapter. Place the enclosure on a horizontal surface.

2. Disconnect the 3-prong cable connectors on the interior AC cables (figure 3-5).

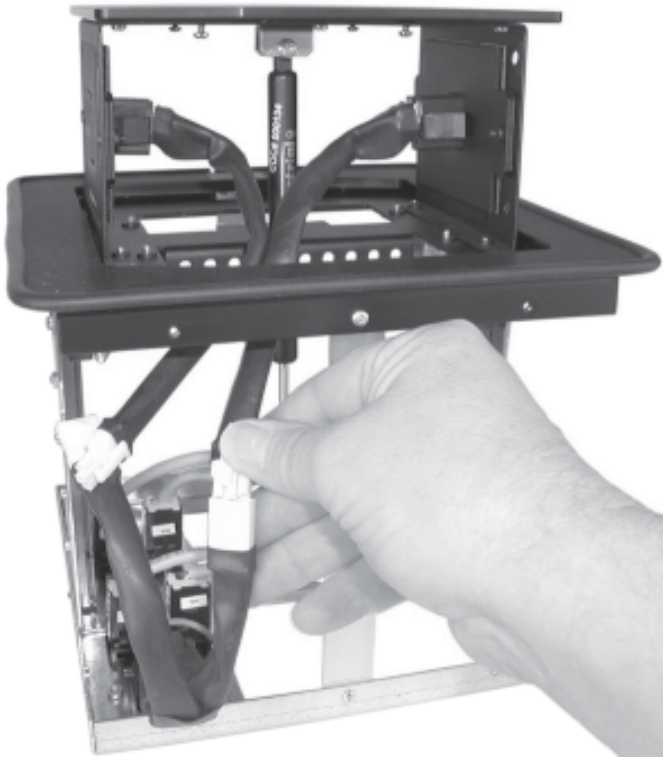


Figure 3-5 — Disconnecting the interior AC cables

3. Turn the enclosure upside-down. To protect the finish, place the enclosure on a soft cloth.

4. Open and close the top panel as necessary to access the center lifting platform (figure 3-6). Remove the four screws that secure the top panel bracket to the lifting platform.

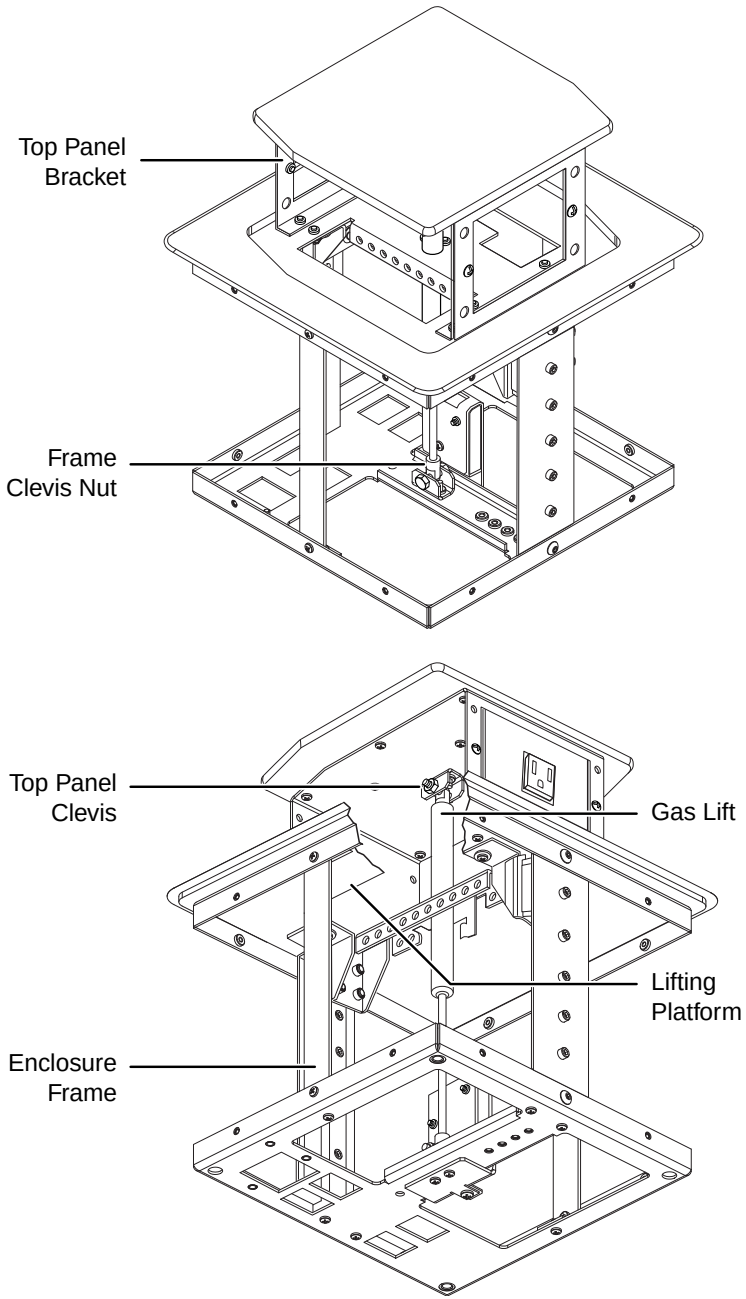


Figure 3-6 — Changing the gas lift

CAUTION *With the top panel bracket detached from the lifting platform, the bracket will be floppy atop the gas lift. Ensure that the bracket does not contact the top flange. Marring of the soft surface of the flange may result*

5. Turn the enclosure frame rightside-up.

6. Remove and retain the 9/32" nut and bolt that secure the gas lift to the top panel clevis. Lift the top panel and clevis off of the gas lift and set it aside on the bracket flanges.

7. Turn the gas lift counterclockwise until the lift comes free of the frame clevis nut at the bottom of the enclosure frame. Carefully draw the gas lift out through the top of the enclosure frame.

8. Insert the shaft end of the replacement gas lift through the hole in the lifting platform. Thread the shaft of the gas lift into the frame clevis nut and tighten it several turns.

CAUTION *Ensure that the top panel bracket does not contact the top flange. Marring of the soft surface of the flange may result*

9. Hold the top panel in position above the gas lift. Secure the gas lift to the top panel clevis with the nut and bolt that were removed in step **6**.

10. Reconnect the interior AC power cables.

11. If necessary, release (extend) the top panel. Turn the enclosure frame upside-down and place it on the soft cloth surface.

12. Secure the top panel bracket to the lifting platform with the four screws removed in step **4**.

13. Reinstall the surface mount enclosure. See "Removing and Replacing the Enclosure", steps **11** through **18**.

Adjusting the Top Surface

The top lifting panel of the HSA 822 can be adjusted to raise or lower its level flush with the flange. It can also be adjusted to ensure that the lifting panel is horizontal and not tipped.

Adjusting the height of the top surface

NOTE *You may be able to adjust the height of the top lifting panel without removing the HSA 822 from the table. If you can reach the height adjustment lock screw slots (figure 3-7) in the side of the enclosure with a long Phillips-head screwdriver, you should not need to remove the HSA from the table.*

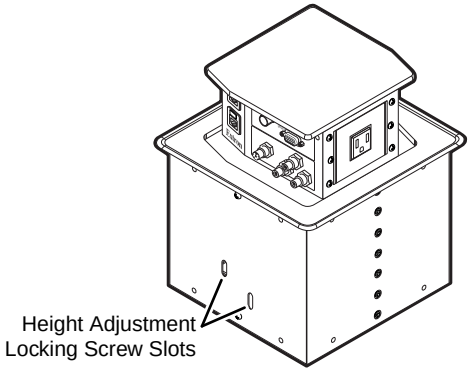


Figure 3-7 — Height adjustment locking screw slots

Raise or lower the lifting panel flush with the flange as follows:

1. If you cannot access the height adjustment locking screw slots in the side of the HSA enclosure, remove the surface mount enclosure from the table. See "Removing and Replacing the Enclosure", steps **1** through **9**. Place the enclosure on its side on a horizontal surface. To protect the finish, place the enclosure on a soft cloth.

2. If necessary, close and latch the top panel.

3. Slightly loosen the two locking screws (figure 3-8).

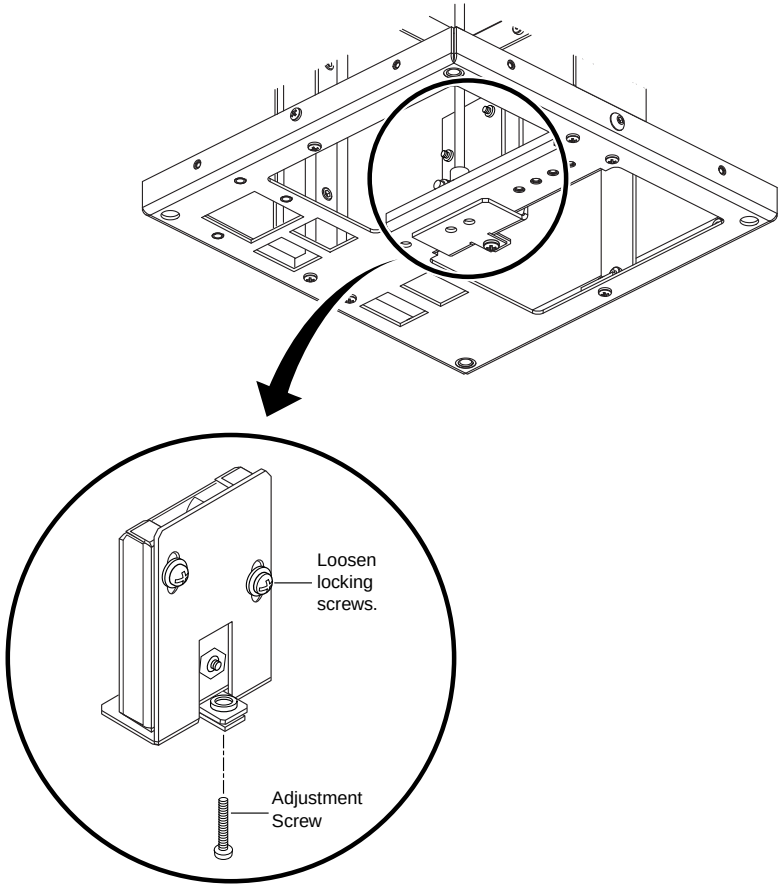


Figure 3-8 — Height adjustment screw location

4. Turn the height adjustment screw counter clockwise to raise the lifting plate or clockwise to lower the plate (figure 3-8).

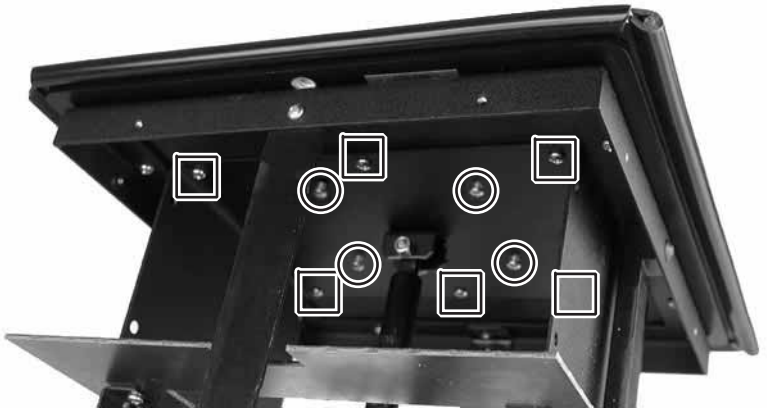
5. Tighten the two locking screws that you loosened in step **3**.

6. If removed, reinstall the surface mount enclosure in the table. See "Removing and Replacing the Enclosure", steps **12** through **18**.

Adjusting the top surface level

The top lifting panel of the HSA 822 can be adjusted to ensure that the lifting panel is horizontal and not tipped. Level the lifting panel of the HSA 822 as follows:

1. Remove the surface mount enclosure from the table. See "Removing and Replacing the Enclosure", steps **1** through **9**. Place the enclosure on a horizontal surface. To protect the finish, place the enclosure on a soft cloth.
2. If necessary, close and latch the top panel.
3. Slightly loosen the six locking screws (figure 3-9) that secure the top panel to the panel bracket.



□ Indicates the location of the locking screws. (One screw is concealed.)
◯ Indicates the location of the adjustment screws.

Figure 3-9 — Location of level adjustment and locking screws

4. Carefully turn the four adjustment screws on the underside of the top panel to level the top panel with the flange.
5. Tighten the six screws that you loosened in step **3**.
6. Reinstall the surface mount enclosure. See "Removing and Replacing the Enclosure", steps **12** through **18**.

Appendix A

Reference Information

Specifications

Part Numbers

Included Parts

Template, Replacement Parts, and Accessories

Interface Accessories

Top Plate Dimensions

Specifications

General

NOTE *The Universal AC outlet is fully compatible with Europlug, British, Indian, Danish, and Italian plug types. See the Universal AC outlet guide on the Extron Web site, www.extron.com, for compatibility details on all plug types*

Rack mount ..... No, but furniture mountable
Enclosure type ..... Metal
Enclosure approximate dimensions

CAUTION *Use the appropriate metal Extron routing template or refer to the surface cutout dimensions here before cutting a hole in the furniture or other surface. Pay special attention to the direction the unit will face; the unit's AAP and connector access side is underlined. Extron is not responsible for miscut mounting holes.*

Top plate (outer rim) ..... 8.470" W x 8.750" D (21.51 cm W x 22.23 cm D)
Top plate (vertically lifting plate) ... 6.220" W x 6.500" D (15.80 cm W x 16.51 cm D)
Surface cutout ..... 7.90" ±0.0325" W (AAP access from front and back) x 8.250" ±0.0325" D (20.07 ±0.083 cm W x 20.96 ±0.083 cm D)
Clamshell (figure A-1) ..... **A** = 7.24" (18.39 cm)
B = 8.25" (21.0 cm)
C = 10.98" (27.89 cm)
Product / shipping weight ..... 8.8 lbs (4.0 kg) / 15 lbs (6.8 kg)
Listings, certifications ..... UL, C-UL
Compliances ..... CE
MTBF ..... Gas lift 100,000 cycles
Warranty ..... 3 years parts and labor

NOTE *Specifications are subject to change without notice.*

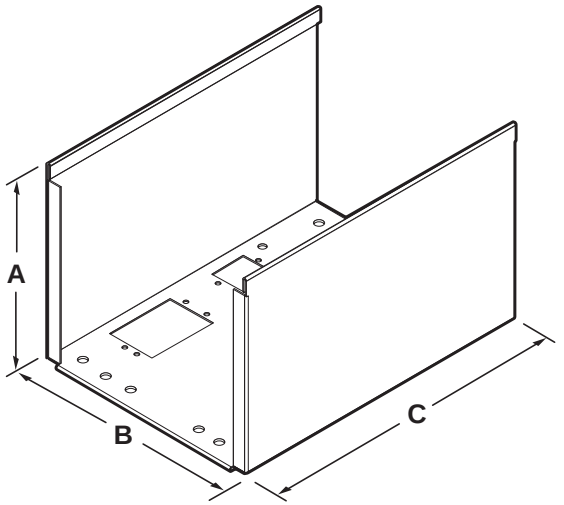


Figure A-1 — Clamshell dimensions

Part Numbers

HSA 822	Part number
HSA 822 US Enclosure (black anodized)	60-570-01
HSA 822 International Enclosure	60-687-*nn*

NOTE *For the international versions, the* nn *in the part number identifies the AC power connector and finish (black anodized or brushed aluminum). Specify the desired power connector and finish when ordering.*

NOTE *The USA version of the HSA 822 is also available in a brushed aluminum finish. Visit the Extron web site, www.extron.com for more part numbers.*

Included Parts

	Part
	HSA 822 User's Manual
	Snap-in icon inserts
	RJ-45 connector bezel plug-in inserts (assorted colors and blank)
	1/4 - 20, 1", 1 ½", 2", 2 ½" full thread bolts
-or-	M6 x 65 mm, 50 mm, 40 mm, 25 mm full thread bolts

Template and Accessories

Part	Part number
HSA 822 routing template	70-191-01
HSA 822 standard (10 lb) gas lift	70-193-01
HSA 822 RJ-11 cable kit	70-226-01
HSA 822 flexible conduit adapter kit	70-228-01

Interface Accessories

Accessory	Part number
RGB 580*xi*	60-362-01
RGB 580*xi* AAP 3' (black)	70-128-02
RGB 580*xi* AAP 6' (black)	70-129-02
RGB 580*xi* S AAP 3' (black)	70-134-02
RGB 580*xi* S AAP 6' (black)	70-135-02
RGB 580*xi* SI AAP 3' (black)	70-137-02
RGB 580*xi* SI AAP 6' (black)	70-138-02

Top Plate Dimensions

The preferred and recommended method for cutting the table is to use the metal routing template, part # 70-191-01, (figure A-2 and chapter 2, "Installation") and a router.

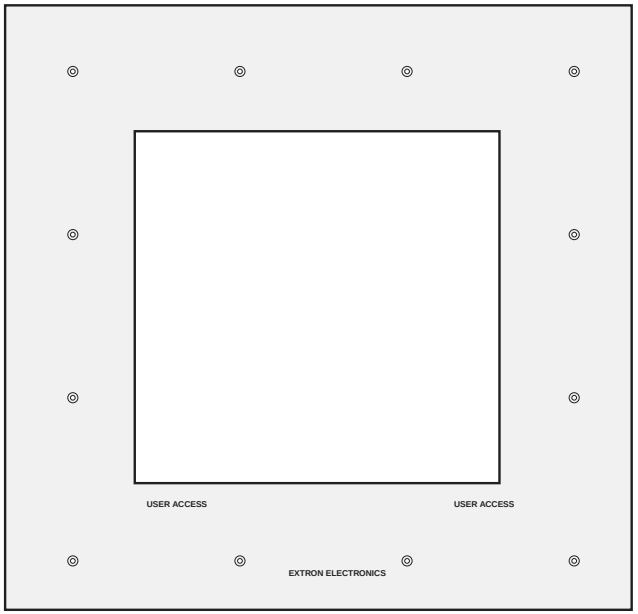


Figure A-2 — HSA 822 metal routing template

If you choose not to use metal routing template available from Extron, the cut-out template (figure A-3) will help you properly prepare the mounting surface. The cut-out template is **not to scale** and is **for reference only**. The surface cut-out area dimensions for the template are **marked in bold type**.

For a full size paper template, visit the Extron Web site (www.extron.com) or call the Extron S³ Sales & Technical Support Hotline.

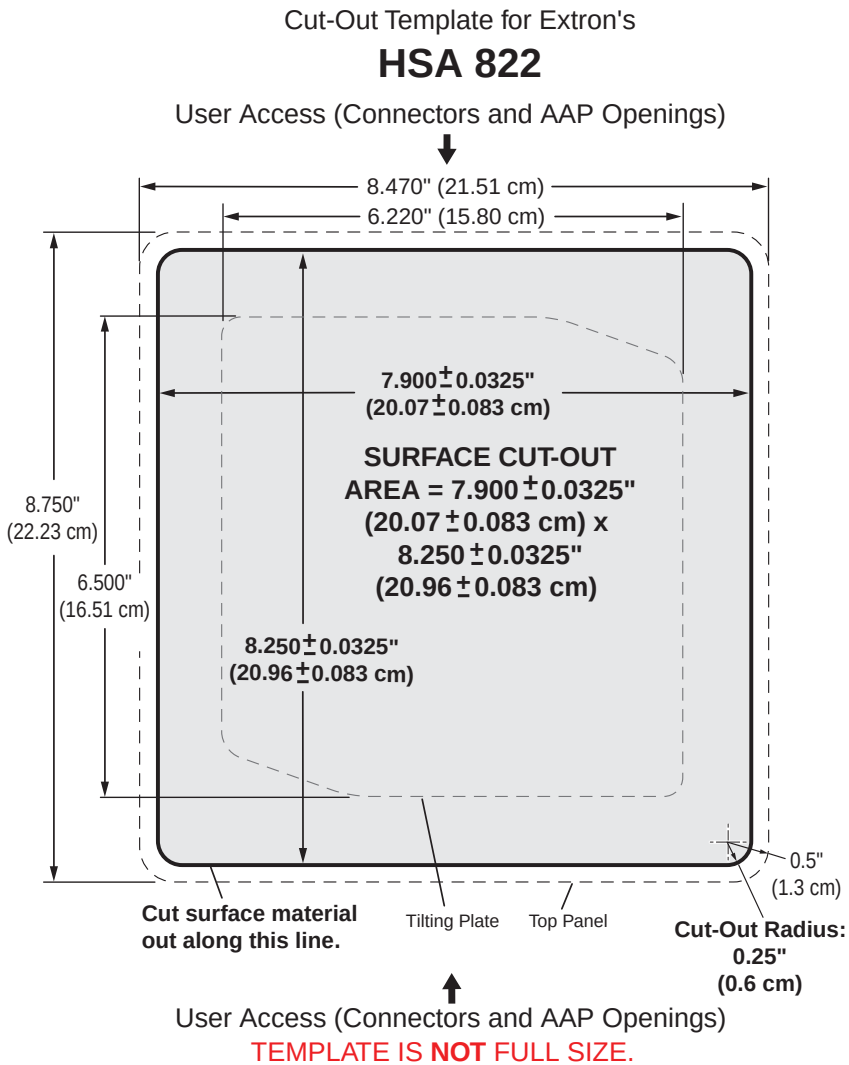


Figure A-3 — HSA 822 cut-out template

Appendix B

Packaging for Shipment

Packaging for Shipment

The HSA 822's ultra-fine machined surfaces and moving parts make them vulnerable to damage caused by mishandling during shipment if they are improperly packaged. If, for any reason, you need to return an HSA to Extron, first contact Extron to obtain a return kit. The return kit, which reduces the chances of damage during shipment, includes a sturdy shipping carton and foam cut to fit the HSA (figure B-1).

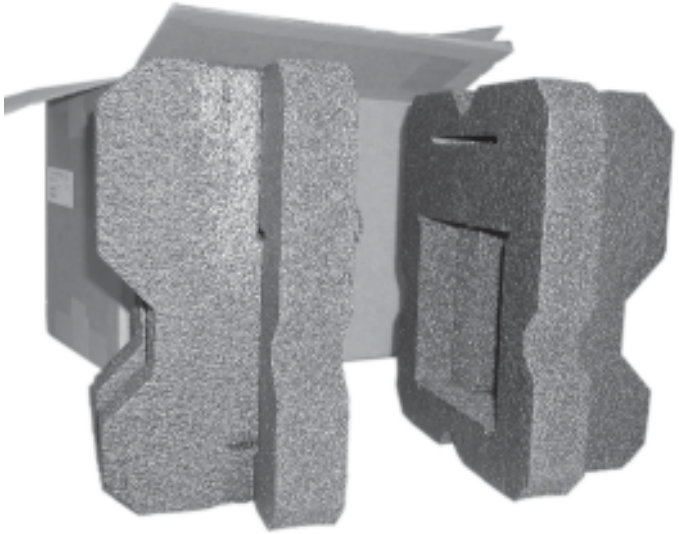


Figure B-1 — HSA 822 return kit

Package an HSA for shipment as follows:

1. Contact the Extron S³ Sales & Technical Support Hotline to obtain a return kit. Extron will send the repair kit to the location you specify.

WARNING *The flanged edges of the top of the surface enclosure are sharp when the HSA is removed from the table. Exercise caution when handling to prevent personal injury.*

CAUTION *The flanged edges of the top of the surface enclosure are bevelled to an ultra-fine thickness of less than 0.04 (4/100)" (approximately 1 mm). These edges are soft and can be easily nicked or bent. Exercise caution when handling and mounting the enclosure. Mishandling can damage the appearance of the enclosure.*

2. Disconnect all cables, remove any AAPs, and remove the HSA 822 from the table or desk. See "Removing and Replacing the Enclosure", steps **1** through **8**, in chapter 3, "Maintenance and Modifications". Place the enclosure upside-down on a horizontal surface. To protect the finish, place the enclosure on a soft cloth or rubber mat.

3. Bolt the clamshell to the enclosure with two bolts and flat washers included in the return kit (figure B-2).

Figure B-2 — Attaching the clamshell

4. Place the enclosure and clamshell rightside-up on a horizontal surface. To protect the finish, place the enclosure on a soft cloth or rubber mat.

5. Install the rubber strips that protect the flanged edges of the top of the surface enclosure (figure B-3).

Figure B-3 — Installing protective strips

6. Release (extend) the top panel.

7. Insert the HSA 822 and the clamshell into one of the foam shells (figure B-4). Either open end of the clamshell and the open top panel will fit into the recesses in the foam.

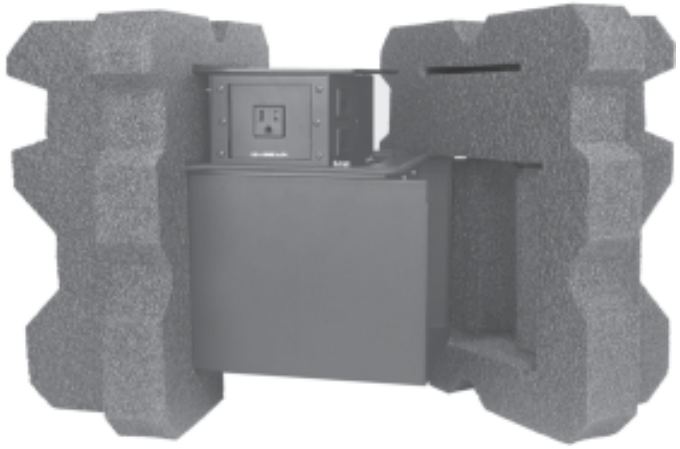


Figure B-4 — Installing the foam shell

8. Insert the opposite end of the HSA 822 and the clamshell into the remaining foam shell (figure B-5). Firmly push the foam shells together as far as they will go to completely suspend the HSA and clamshell. The sides of the clamshell protrude through slots in the foam.

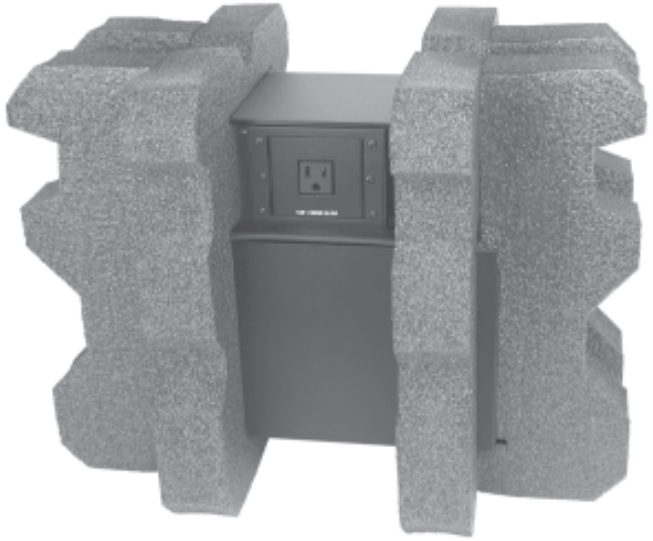


Figure B-5 — HSA suspended in the foam

9. Lower the foam-protected HSA into the shipping carton (figure B-6).

Figure B-6 — Placing the HSA in the shipping carton

10. Close the shipping carton and seal it with high quality shipping tape.

11. Ship the HSA to Extron using a reputable shipping company.